Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for use in encoding video data, ~~including~~ comprising:

storing a predetermined relationship between metric values and respective quantities of encoded video data, the predetermined relationship determined during a calibration process and based at least in part on a metric function and reference video data;

receiving input video data after storing the predetermined relationship;

using ~~a~~ said metric function to generate metric values from said input video data and respective encoding parameters;~~, and~~

selecting at least one of said encoding parameters on the basis of a desired quantity of encoded video data and ~~a~~ said predetermined relationship between metric values and respective quantities of encoded video data; and

under control of at least one of a configured hardware circuit and a configured computer, encoding said input video data using the selected at least one encoding parameter.

2. (Withdrawn, Currently Amended) A method as claimed in claim 1, further ~~including~~ comprising:

determining an estimate for the quantity of encoded video data from said relationship and the selected at least one encoding parameter~~, encoding said video data using the selected at least one encoding parameter,~~;

determining an error between said estimate and the quantity of encoded video data;~~,~~ and

adjusting said relationship on the basis of said error.

3. (Withdrawn) A method as claimed in claim 2, wherein said error is determined for at least one of frames, segments, and macroblocks of video data.

4. (Withdrawn) A method as claimed in claim 2, wherein said error is determined for frames and macroblocks of video data.

5. (Currently Amended) A method for use in encoding input video data, ~~including~~ comprising:

determining a relationship between metric values generated from reference video data using a metric function and respective first encoding parameters, and quantities of encoded video data generated by encoding said reference video data using said respective first encoding parameters;

using said metric function to generate metric values from said input video data and respective second encoding parameters; ~~and~~

selecting at least one of said second encoding parameters on the basis of a desired quantity of encoded video data and said relationship; and

under control of at least one of a configured hardware circuit and a configured computer, encoding said input video data using the selected at least one encoding parameter,

wherein said metric function is a spatial activity metric function based on a sum of weighted AC discrete cosine transformation coefficients and is of the form, $\sum_{u,v} \frac{|f(u,v)|}{w(u,v)q(u,v)}$, where $f(u,v)$ is a discrete cosine transformation coefficient of a block element with coordinates (u, v), $w(u,v)$ is a weight for said coefficient, and $q(u,v)$ is a quantization parameter for said coefficient.

6. (Previously Presented) A method as claimed in claim 5, wherein said relationship is a power law relationship.

7. (Previously Presented) A method as claimed in claim 5, wherein said metric function is based on AC coefficients of discrete cosine transformation data generated from said video data.

8-9. (Canceled)

10. (Currently Amended) A method~~ as claimed in claim 8~~ for use in encoding input video data, comprising:

determining a relationship between metric values generated from reference video data using a metric function and respective first encoding parameters, and quantities of encoded video data generated by encoding said reference video data using said respective first encoding parameters;

using said metric function to generate metric values from said input video data and respective second encoding parameters;

selecting at least one of said second encoding parameters on the basis of a desired quantity of encoded video data and said relationship; and

under control of at least one of a configured hardware circuit and a configured computer, encoding said input video data using the selected at least one encoding parameter,

wherein said metric function is a spatial activity metric function based on a sum of weighted AC discrete cosine transformation coefficients and ~~wherein said metric function~~ is of the form, $\sum_{u,v} \frac{|f(u,v) * h(u,v)|}{w(u,v)q(u,v)} =$, where $f(u,v)$ is a discrete cosine transformation coefficient of a block element with coordinates (u, v), $w(u,v)$ is a weight for said coefficient, $q(u,v)$ is a quantization parameter for said coefficient, and $h(u,v)$ is a spatial weighting factor for said coefficient.

11. (Currently Amended) A method as claimed in claim ~~8~~5, wherein metric values are determined for each 8x8 pixel block of said video data using said metric function.

12. (Original) A method as claimed in claim 11, including determining a metric value for a macroblock by summing metric values for the constituent 8x8 pixel blocks.

13. (Previously Presented) A method as claimed in claim 5, including determining basic metric values from said metric function and basic encoding parameters, and deriving metric values from said basic metric values.

14. (Original) A method as claimed in claim 13, including deriving said metric values from said basic metric values using shift and add operations.

15. (Withdrawn) A method as claimed in claim 5, wherein said metric function is based on the number of non-zero AC discrete cosine transformation coefficients after quantization.

16. (Withdrawn) A method as claimed in claim 15, wherein said metric function is used to determine metric values for a macroblock of six 8x8 pixel blocks.

17. (Currently Amended) A video encoding module for use in encoding input video data, comprising:

means for determining a relationship between metric values generated from reference video data using a metric function and respective first encoding parameters, and quantities of encoded video data generated by encoding said reference video data using said respective first encoding parameters, during a calibration process;

means for storing said relationship;

means for using said metric function to generate metric values from said input video data and respective second encoding parameters; and

means for selecting at least one of said second encoding parameters on the basis of a desired quantity of encoded video data and said relationship.

18. (Currently Amended) A video encoding module, including:

a predictor module for storing a predetermined relationship between metric values and respective quantities of encoded video data, the predetermined relationship determined during a calibration process and based at least in part on a metric function and reference video data; and for generating metric values from input video data using ~~a~~ said metric function and respective quantization parameters~~,~~; and

a selector module for selecting at least one of said quantization parameters on the basis of said metric values and a predetermined relationship between metric values and respective quantities of encoded video data,

wherein the video encoding module further includes at least one of:

at least one dedicated hardware circuit configured to implement the predictor module; and

at least one processor configured to execute the predictor module.

19. (Currently Amended) A video encoding module, including a predictor module for determining estimates for bit counts representing the quantity of video data encoded using respective quantization vectors, a selector module for selecting two of said quantization vectors on the basis of said estimates, first quantization and variable length coding modules for generating first encoded video data using a first of said selected quantization vectors, second quantization and variable length coding modules for generating second encoded video data using a second of said selected quantization vectors, and an output decision module for selecting one of said first encoded video data and said second encoded video data for output on the basis of at least one of the bit count value of said first encoded video data and the bit count value of said second encoded video data,

wherein the video encoding module further includes at least one of:

at least one dedicated hardware circuit configured to implement the predictor module; and

at least one processor configured to execute the predictor module.

20. (Withdrawn) A video encoding module as claimed in claim 19, wherein said output decision module adjusts encoding parameters for encoding video data on the basis of at least one error between an estimated bit count and a corresponding bit count.

21. (Canceled)

22. (Currently Amended) An MPEG encoder, for encoding input video data, comprising:

a predictor module for determining estimates for bit counts representing a quantity of video data encoded using respective quantization vectors, wherein determining estimates is based at least in part on a stored relationship between metric values and respective quantities of encoded video data, the stored relationship determined using reference video data during a calibration process;

a selector module for selecting one of said quantization vectors based on said estimates; and

a coding module for encoding the input video data using the selected quantization vector,

wherein the MPEG encoder further comprises at least one of:

at least one dedicated hardware circuit configured to implement the predictor module; and

at least one processor configured to execute the predictor module.

23. (Currently Amended) A method as claimed in claim 1, including generating predicted quantities of encoded input video data from said predetermined relationship and said metric values generated from said input video data, and selecting one or more of said predicted quantities of encoded input video data closest to said desired quantity of encoded video data.

24. (Currently Amended) A method as claimed in claim 1, wherein said predetermined relationship is determined on the basis of metric values generated by said metric function from said reference video data and respective encoding parameters, and respective quantities of encoded video data generated by encoding said reference video data using said respective encoding parameters.

25. (New) The video encoding module of claim 17, wherein said metric function is a spatial activity metric function based on a sum of weighted AC discrete cosine transformation coefficients and is of the form, $\sum_{u,v} \frac{|f(u,v)|}{w(u,v)q(u,v)}$, where $f(u,v)$ is a discrete cosine transformation coefficient of a block element with coordinates (u, v), $w(u,v)$ is a weight for said coefficient, and $q(u,v)$ is a quantization parameter for said coefficient.

26. (New) The video encoding module of claim 17, wherein said metric function is a spatial activity metric function based on a sum of weighted AC discrete cosine transformation coefficients and is of the form, $\sum_{u,v} \frac{|f(u,v) * h(u,v)|}{w(u,v)q(u,v)}$, where $f(u,v)$ is a discrete cosine transformation coefficient of a block element with coordinates (u, v), $w(u,v)$ is a weight for said coefficient, $q(u,v)$ is a quantization parameter for said coefficient, and $h(u,v)$ is a spatial weighting factor for said coefficient.

27. (New) The video encoding module of claim 18, wherein said metric function is based on AC coefficients of discrete cosine transformation data generated from said video data.

28. (New) The video encoding module of claim 18, wherein said metric function is a spatial activity metric function based on a sum of weighted AC discrete cosine transformation coefficients.

29. (New) The MPEG encoder of claim 22, wherein said relationship is a power law relationship.